THE AMERICAN JOURNAL OF

OPHTHALMOLOGY.

VOL. I. AUGUST 15, 1884. No. 5.

EXOPHTHALMUS FROM DISEASE OF THE ETHMOID BONE, [illegible] CONSEQUENCE OF CHRONIC CATARRH OF THE NASO-PHARYNX.[1]

BY J. J. B. VERMYNE, M. D., NEW BEDFORD, MASS.

Miss C. S., æt. 16, a healthy looking young lady, came to consult me a little over a year ago at the advice of her family physician for a protrusion of the right eye, which had been observed for some time. For a few days previous there had been a slight headache. She had been somewhat ailing—but no serious disease had attacked her since her fifth year, when she had a very severe attack of scarlet fever. Since that time she has suffered from chronic catarrh of the naso-pharynx, especially from the right side, with constant muco-purulent or purulent discharge. The eyelids are normal, close normally over the bulbus; no dilated veins can be observed. Conjunctiva and externally visible parts of the eye appear normal. There is complete absence of pain in or around the eye; the vision is not disturbed, neither are the movements of the eye interfered with. Vision O. S.=1. E;

1 Reported before the American Otological Society, July 15, 1884.

O. D.=1, slightly improved by +0, 5 D. The ophthalmoscopic examination shows the disc slightly raised, and the vessels somewhat distended. No pulsation or murmur can be detected by placing the stethoscope over the eyeball.

My first impression was the forming of some neoplasms within the muscle-cone, producing pressure against the globe, and thereby the protrusion and the ophthalmoscopic appearance. Consequently I prescribed Potass. Bromid. and Hydriod. internally and Potass. Hydriod. with Iodine externally and advised slight pressure upon the bulbus. My fears of important affection in or around the nervus opticus were increased at the occasion of my second visit, when she had a slight fainting spell. But with this exception she never had any nervous disturbance, The headache, of which she complained at the occasion of her first visit, very soon left her, and, with the exception of the slight deformity from the protruding eye, she felt well.

The absence of pain and of general symptoms and the unobstructed vision first led me to the supposition that some other cause might exist for the exophthalmus, than the one I had at first assumed, namely, a growth behind the bulbus. Making a careful digital examination I found a tumor, the size of half a hazelnut, extending from the upper edge of the orbit to a little below the ligamentum canthi internum, gradually sloping backward, as far as the finger could reach. It was of bony hardness, slightly uneven, not painful to the touch, immovable and connected with the os planum, or the lamina papyracea of the ethmoid bone. The lachrymal canals and ducts were patent. It occurred to me that the chronic catarrh of the naso-pharynx was the cause of the present condition. In examining the nasal cavity I found that the patient breathed quite freely through both sides, and, as far as could be discovered, no polypi existed. There is, however, abundant muco-purulent discharge, especially from the right side.

The patient's mother told me at this time, that on different occasions previously, she had observed a peculiar appearance of the right eye, a condition which was usually called "lobster eye." This would last for some days and then apparently recede. Whether this peculiar appearance ever coincided with an

increase of the catarrhal affection, I could not learn. I now changed the treatment, increasing the dose of Potass. Hydroid, omitting the Potass. Bromid. and to advise the use of Potass. Hydriod. with Tinct. Iodine (von Trœltsch formula) in the nasal cavity, tonics and especially out-door exercise of any kind. Under this treatment the catarrhal trouble has diminished. It was occasionally supplemented by the use of a four per cent solution of boracic acid, when the discharge became purulent, and this is now very rarely the case. The general health has improved, and, beyond the deformity caused by the slight protrusion, there is no complaint. The patient admitted to me afterward, that for a long time she had observed slight diplopia, on opening her eyes in the morning, but which would disappear in a few seconds. Being so slight, it had almost entirely escaped her attention. It still continues, but is not increased. She thinks the eyelids less prominent. Whether this be so or not, I am not able to determine with the necessary degree of accuracy.

The rarity of cases of this kind is a sufficient reason for their publication. Berlin[1] gives the statistics with regard to diseases of the orbit, from 209,185 cases of eye diseases, collected from the yearly reports of 65 institutions. The percentage of diseases of the orbit is 0.19. Of these diseases nearly one-half were pure orbital tumors, while only 2.7 per cent were tumors, originating in neighboring cavities, the maxillary, ethmoid or cranial cavity.

But aside from its rarity the case seems to me to present some points of interest with regard to diagnosis and treatment.

Although tumors, originating in neighboring cavities and gradually encroaching upon the orbit may often be mistaken for pure orbital tumors, there is no difficulty in locating the tumor in the present case, as originating from the ethmoid bone. From its form, the absence of pain and the general good health of the patient, I believe the diagnosis must lie between exostosis and retention tumor.

A case of the latter kind was reported by Dr. Knapp before the International Ophthalmological Congress in New York, in 1876, which I beg leave to repeat here:[2]

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1. Graefe-Saemisch. Handb. d. ges. Augenheilk. VI, 2, p. 504.
2 Report of the Fifth Internat. Ophthalmol. Congress. 1876. p. 55.

"A healthy looking girl of 14 years of age, consulted me in March, 1874. A tumor, the size of a walnut, occupied the region of the inner, upper corner of the orbit, reaching downward a little below the ligamentum canthi internum. Its entire surface felt hard like bone, and was nodular. The tumor was entirely immovable, caused neither pain nor inflammation, but pushed the eye outward and a little downward, without impairing the vision. She breathed through the left nostril without obstacle and her voice had no nasal twang. The tumor had first been noticed three years previously, as a slight swelling, above the inner corner of the eye, had grown slowly at first, more rapidly during the last months, but had never been connected with pain, weakness of sight or any other inconvenience. The disfigurement and the beginning protrusion of the eye caused her to seek relief."

The case I have reported, has so many features in common with Dr. Knapp's case, that I feel inclined to the belief, that the tumor in question is a retention tumor. Puncture with a trocar would certainly be the most accurate manner to ascertain the nature of the tumor, but unless some positive advantage could be gained by the use of any instrument, would not be readily assented to. But my opinion is based especially upon the existence of chronic catarrh of the naso-pharynx, more prominent on the right side, and upon the occasional appearance of the "lobster eye" mentioned above. I referred the case with a history to Dr. H. W. Williams, of Boston, who entirely confirmed my view of the case.

Dr. Knapp, considering his case one of exostosis, proceeded to its removal by chisel and hammer, when it proved to be a thin, bony shell, the distended os planum, and the recesses of the ethmoid filled with a thin muco-pus. This operative proceeding is recommended by him, even to the point of disregarding the explorative puncture of the tumor, advised by other writers, as the nature of the tumor will show itself during the process of operation for its removal. But from a recent case, reported by Dr. Knapp in the Archives of Otology,[1] April num-

1. Archives of Otology. XIII, 1, p. 51.

ber this year, we may draw some valuable lessons. Dr. Knapp himself formulates them under 3 and 4 of his conclusions:

3. "Osseous tumors, which develop in comparatively healthy pneumatic cavities, can be removed with safety—that is to say, the operative traumatism does not constitute an element of particular danger."

4. "The removal of osseous tumors from pneumatic cavities with diseased osseous walls, is dangerous, by causing the inflammation to extend into the cranial cavity, and often proves fatal by acute (traumatic) meningitis and encephalitis."

In this case there was a tumor of bony hardness, the size of a cherry, on the nasal side of the left orbit, immovably connected with the os planum, which was noticed four months previously and had steadily increased to its present size. The eye was slightly displaced, but otherwise not affected, There were then, and there had been for some time polypous growths in the nasal cavity, which had often been removed. His opinion was, that the orbital tumor was either an expansion of the ethmoid cells by the polypous growth or a more or less solid osteoma springing from the walls of these cells. The tumor was removed and on the fourth day the patient died.

At the autopsy it was found, that the chronic inflammation in the pneumatic cavities of the upper part of the face had led to a distension of the left frontal sinus and rendered its osseous walls congested and porous (ostitis) with beginning necrosis. The enucleation of the growth, the opening of the frontal sinus and the scraping out of its contents with sharp spoon, had produced sufficient irritation in the diseased walls of the sinus, to incite a purulent meningitis, which became the immediate cause of death.

I have failed to find in the description of this case any indication, which might lead us to assume that there existed during life the morbid condition of the osseous walls, which led to such a fatal issue. It would certainly not have escaped the attention of such an accurate observer. The question becomes pertinent: What constitutes a *comparatively* healthy pneumatic cavity, and cannot in cases of this kind some participation of the osseous walls near the growth be suspected? Since Knapp advises in his first ar-

ticle the same treatment, both for exostosis and retention tumor, namely, the removal by chisel and hammer, the danger that we might meet with such an experience as he had, cannot be considered too lightly. It may be there is less danger of such complication when the osseous walls are only mechanically distented, but in this case the preliminary investigation of the nature of the tumor with trocar, instead of being unnecessary, would become imperative. In both of Knapp's cases the character of the growth was only ascertained *after* the operation. It is certainly not justifiable to operate in such cases *quand meme.*

Dr. H. W. Williams[1] says that if osseous tumors are of slow growth and not of inconvenient size, they may be left untouched.

Schweigger[2] says: "Osseous tumors of the walls of the orbit may appear from every part of the walls, but more especially from the upper and inner wall. Frequently these tumors are connected with disease (polypi or granulations) in the nasal cavity or the frontal sinus or extend into the cranial cavity." He recommends the Potass. Hydroid. With regard to resection, he says: "It does not give an average of favorable results, which can easily be explained from the uncertainty of diagnosis with regard to the extension of the tumors and their situation in the orbit."

R. Berlin[3] says, that of the cases of resection or extirpation of osseous tumors 25 per cent die from meningitis or encephalitis, and that the deformity can in no case justify a proceeding, which gives such a high percentage of unfavorable results. He modifies this statement somewhat by saying, that if the upper wall of the orbit is not included in the growth, resection of the tumor *may* be advisable "if it become necessary to save the eye."

Although in my present case an increase in the growth, endangering the function of the eye, or the eye itself, or excessive pain might call for more determined surgical interference at some future time, I believe that I am justified in continuing the treatment, which has thus far been followed.

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1. Williams, Diseases of the Eye. p. 409.
2. Schweigger, Handb. d. Spec. Augenheilk. p. 199.
3. R. Berlin: Graefe-Saemisch Handb. d. Augenheilk. VI, 2. p. 730.

MYXO-FIBROMA AT THE BASIS CRANII, CAUSING BLINDNESS AND SEVEN YEARS LATER DEAFNESS, BY DESTRUCTION OF THE LABYRINTH.[1]

BY J. J. B. VERMYNE, M. D., NEW BEDFORD, MASS.

The case, which I wish to report, was occasionally seen by me, but during a period of eight years was treated by a number of physicians of different types, hence its history cannot be given with entire accuracy.

Miss H. T. P., æt. 20, consulted me in January, 1876, for occasional dimness of vision, which she had observed for a few weeks, the eyes were very soon tired and vision became blurred, while she thought her vision for distance was not quite so sharp as it used to be. The eyes were emmetropic $V=\frac{12}{12}$. The ophthalmoscopic examination showed both discs congested and retinal vessels slightly distended. I advised rest for the eye, cold water douche and spirituous lotion to the forehead and temple. I saw her again in February. There was no observable change, but the patient declared that the eyes felt somewhat stronger. There was no other complaint at that time.

Toward the end of April of the same year she was sent to me by the physician who attended her for intense headache, especially occipital, occurring in periodical attacks. Vision had failed more rapidly. On ophthalmoscopic examination optic neuritis was easily made out, and this in connection with the intense headache led to the diagnosis of coarse disease of the brain, probably basal tumor. There was no vertigo, no vomiting no lack of co-ordination. The treatment prescribed consisted in large doses of Potass. Bromid. and Hydriod. and the application of Heurteloup's artificial leech to the temples every other day.

Under this treatment, which was continued during May, the headache became less severe, and the congestion in the disc and

1. Reported before the American Otological Society, July 15, 1884.

retinal vessels decreased. Vision improved and as she was fond of music, she began to resume practicing on the piano certain hours of the day. Of course the parents were highly elated with this result, but when I expressed my doubts about the permanency of the relief, and my fears of severe cerebral trouble, the slight improvement notwithstanding, I lost the case and the patient passed into the hands of a celebrated clairvoyant and magnetic physician of Boston.

Occasionally I would receive some information with regard to my patient from outsiders, who had seen her in the cars, when on her regular visits for treatment. These reports were at first encouraging—she was improving. Then came the report that her vision was failing again; finally that she had become entirely blind.

I did not see the patient again until January, 1881, five years after my first treatment, she was loth to speak of the treatment received during that time, but begged me to try to do something for the restoration of her vision. Her headache, at times very severe, was more paroxysmal; her mind perfectly clear, appetite and digestion good, no trouble about walking. The eyes have a staring look, pupils very large and showing no reaction at all upon strong light. Ophthalmoscopic examination shows secondary atrophy of both papillæ. I tried to persuade her that treatment would be of no avail, but she so persistently requested to have something done, that at last I consented, however, reluctantly, to try hypodermic injections of strychnine. These were applied every other day for six weeks; as might be expected, without any benefit, and treatment was entirely suspended.

Again, I saw the patient in August, 1883. She had become suddenly deaf, so that the only way of communication could be by tracing with the finger in the palm of the hand. Mind perfectly clear. No aphasia. Perhaps a little slowness in her answers. Drum-membrane of right ear opaque, of left ear normal. Tubes patent. Tuning fork faintly heard at left side; a little stronger at the right side. With my knowledge of the former history of the case I was compelled to make an ominous prognosis, believing that the neoplasma, or whatever the char-

acter of the brain disease might be, had invaded the domain of the auditory nerve.

The patient died in May of this year. From the family physician I gained the following information:

The patient's father died of apoplexy. One sister had epileptic convulsions when quite young, and died at the age of eleven, a confirmed idiot. Another sister died quite suddenly, when about six or seven years old; cause of death unknown. He had made occasional visits to the patient when suffering from a severe attack of headache. The deafness, which was the occasion of my last visit to the patient, lasted about six weeks. Then hearing gradually returned, until he thought she could hear almost as well as before. This continued for about six months, when again the hearing began to fail and at last entirely disappeared. She suffered from intense headache, but there was no vomiting. There was paralysis of the left facial. No aphasia. A few days before death partial coma set in, on the last day it was complete.

An autopsy was held 24 hours after death, according to a wish expressed by the patient during the last few weeks of her life. I am indebted to Dr. Wm. N. Swift, of this city, for the following report of the condition of the brain.

"A tumor was found situated in the anterior portion of the left inferior occipital fossa, lying beneath the Tentorium Cerebelli and being adherent on its anterior inferior surface to the dura mater, covering the petrous portion of the left temporal bone."

"The tumor was 6 cm. long, 4 cm. broad and 2 cm. thick. It was somewhat lobulated, and on its anterior inner surface were situated two small nodules, one the size of a pea, the other slightly larger. The tumor was entirely surrounded by a membrane, except at the point where it was adherent to the periosteum of the petrous portion of the temporal bone.

"The cut surface was smooth and glistening, of a grayish yellow color, with red points and streaks and bright yellow patches. There were many calcified plates, some at least one centimeter long.

The pia mater of the cerebellum was normal and there were

no adhesions between it and the surface of the tumor. The left lobe of the cerebellum was compressed by the tumor to at least one-third of its original volume. Its substance was intact, but very anæmic, and of much increased consistency. The right lobe of the cerebellum was also very anæmic and of increased consistency.

"The brain was anæmic, convolutions flattened, and there was dilatation of both lateral ventricles, each containing about 30 grammes of serous fluid.

"The microscopic examination of the tumor showed it to be a myxo-fibroma, which had undergone extensive fatty degeneration, and with deposits of lime salts. The two small nodules on the anterior surface of the tumor consisted almost entirely of fibrous tissue."

The posterior surface and top of the pyramid, corresponding with the places where the projecting nodules just mentioned were found, were largely eroded. It was removed with chisel and hammer. There is hardly a trace of the anatomical parts of the bone recognizable. A large oval opening leads directly into the tympanic cavity, closed by a perfectly intact drum membrane. No trace can be found of the auditory nerve in the surroundings of the tumor. Whether this was attributable to the difficulty of removing the brain in order not to disfigure the body or whether it was absorbed by pressure I am not able to state. The optic nerves were both shrunken.

From some afterinformation I learned that she had not been able to hear with the right ear for a number of years; cause unknown, probably chronic catarrh of the tympanic cavity: Also that during the last weeks of her life, she walked with difficulty, and had to be supported in order not to fall. Her attending physician had attributed this to her blindness.

The points of interest in this case are:

The first symptoms shown by the neoplasma were those of the eyes. At the occasion of her first visit eight years ago there was no other complaint.

The tumor probably had its origin in the dura mater, affecting the substance of the cerebellum, and the brain only by mechanical pressure. Being of slow growth it may account for

the abscence of any of the symptoms, which might ensue from a more rapid encroachment on the substance of the brain and cerebellum.

The destruction of the temporal bone was due directly to malnutrition, produced by the two nodules at the anterior surface of the tumor, the microscopical appearance of which shows them with certainty to be the most recent developements in the growth.

There is a peculiar anology in the symptoms both of the organs of vision, and of hearing, namely, a serious functional disturbance followed by a period of partial return of the function, and next by complete loss of both these senses. With regard to the power of hearing, it seems to me, that the first attack of deafness was due to pressure upon the bloodvessels, and the latter by pressure upon the nerve itself, within the meatus auditorius internus.

A CASE OF ACUTE HEMORRHAGIC GLAUCOMA SUPERVENING UPON CONGENITAL ATROPHY OF THE CHOROID.

BY DAVID WEBSTER, M. D.,
Professor of Ophthalmology in the New York Polyclinic, etc.

George T. came under observation May 17, 1876, when he was twelve years of age. His mother said that he had always been so near-sighted that his book almost touched his face while he read, and that no glasses could be found at the optician's that improved his vision. He had had convergent squint in infancy which had been corrected by Dr. H. B. Sands, who operated twice upon his right eye and once upon his left. He had never had external inflammation of the eyes, but was always subject to nystagmus, and he complained that it tired his eyes to read.

Our tests showed R. V. $=\frac{10}{200}$, eccentrically, not improved by glasses, L. V. $=\frac{20}{200}$, improved to $\frac{20}{100}$ with $-\frac{1}{48}$.

Upon examining his eyes with the ophthalmoscope, we found

large, brilliant plaques of choroidal atrophy scattered over both funduses, richly pigmented in the region of the macula, and more extensive in the right eye than in the left.

There was evidently nothing to be done for the eyes especially, and his mother was advised to restrain him to some extent in the use of them, and to do all she could for his general health.

There was no remarkable change in this patient's eyes until in August, 1883, more than seven years after we examined them. In the early part of that month, while spending his summer vacation in or near Rochester, he became intensely interested one hot day in the structure of a locomotive engine. Having a highly developed mechanical turn of mind, he spent the most of the day in the hot sun, investigating all the intricacies of its machinery. The same evening he was attacked with severe pain and loss of sight in his left eye, the one with which he saw best, and which he had naturally used most in his examination of the engine.

The following day he consulted Dr. C. E. Rider, of Rochester, whose experience with the case will be best expressed in his own words in a letter to Dr. Agnew and myself.

"September 26, 1883. In the case of Mr. T., the patient came to see me about August 10th, with intense hardness of left eyeball, and almost total amaurosis, and the usual symptoms of acute glaucoma. Eserine was used for a few days without relief. Paracentesis of the cornea followed without relief. Then I did an iridectomy, accompanied and followed by considerable hemorrhage. After the disappearance of the blood I found the retina separated with vision =O, and this is the condition to-day."

The patient then returned to New York, and as the vision of his right eye was insufficient to enable him to read, he entered the school for the blind, where he worked zealously from 8 A. M. to 5 P. M., daily. After he had kept this up for about two weeks he was again attacked with severe pain in and about the eye, and as this did not subside under the more or less frequent use of a solution of eserine, which Dr. Rider had prescribed for him, he came to see us again on October 25th. We found the pupil widely dilated, and the eyeball tension greatly increased. The ophthalmoscope showed only a black reflex, but by oblique illu-

mination the depths of the eye could be seen to be filled with blood, R. V. $\frac{5}{200}$, eccentrically. Leeches to the temple and morphine internally, were prescribed.

October 28th. The patient had leeches applied to the temple on the 26th, and on the 27th took morphine sulph. gr. $\frac{2}{3}$ before the pain was relieved. He also used a one-grain-to-the-ounce solution of eserine eight times a day.

January 31, 1884.—The eyeball has remained, all along, slightly injected and very hard. The eserine has failed to act upon the pupil in the slightest appreciable degree. There is total detachment of the retina, and in its center an exudation apparently the size of a pea, irregular in shape, and covered in part by extravasated blood.

February 8. R. V. $=\frac{12}{200}$. Some pain in and running back from *right eye* for the last week; also pain in left side of head, left jaws and left side of chest.

We thought that the time had now arrived when the only prudent course to pursue would be to enucleate the left eye.

Accordingly, on February 9th, aided by Dr. G. W. Hale, assistant house surgeon of the Manhattan Eye and Ear Hospital, and Dr. Frank W. King, a student of ophthalmology at the New York Polyclinic, I enucleated the bulb, and placed it in Mueller's fluid.

It is scarcely necessary to say that, with the removal of the eyeball all the unpleasant symptoms disappeared. On February 19th I found his vision $\frac{15}{200}$, and he has since worn an artificial eye"

Not less interesting than the history of the case is Dr. T. M. Prudden's report of the examination of the enucleated eyeball, which I herewith append.

DR. T. MITCHELL PRUDDEN'S EXAMINATION.

"*Cornea* normal, except at limbus, where there is considerable congestion of blood vessels and collection of small spheroidal cells about them.

Iris is dense and pressed closely against the lens. Anterior chamber is filled with fluid which becomes granular in preservative agents.

A cyclitic membrane, consisting in part of altered retina and, in part, of new formed tissue incloses the lens behind, and holds encapsulated a considerable quantity of blood in masses.

Retina completely detached. The space between the detached retina and the choroid is filled with a semi-fluid material containing much free blood, pigment, and fragments of variously shaped cells.

The *ciliary body* is flattened.

The *choroid* is, in general, flattened against the sclera with compression of all its layers. Many of the larger blood vessels are surrounded by dense masses of pus cells. In the vicinity of the macula lutea the entire choroid is thickened, projecting irregularly inwards, and pigmented cells are irregularly clustered about the thickened area. At some distance from the macula lutea, though chiefly in this part of the eye, there is irregular thickening and thinning of the choroid, and irregular distribution of the pigmented cells.

The *optic papilla* is not depressed.

Anatomical Diagnosis:—Irido-cyclitis, disseminated choroiditis with choroidal atrophy, detachment of the retina."

It is remarkable that although a high degree of intraocular pressure was kept up in this case for a period of about seven months, yet no cupping of the optic papilla was produced. The effects of the pressure seems to have been only shown in the "flattening" of the ciliary body and of the choroid, and close contact of the iris with peripheral portion of the anterior surface of the crystalline lens.

The "thinning" of the choroid was probably in the spots that were seen to be atrophic years before the eye was attacked with glaucoma; the "thickening" was probably in spots, attacked with choroiditis during the glaucomatous period. It is interesting to see how the microscopic description of the region of the macula lutea tallies with the ophthalmoscopic description.

The detachment of the retina was probably due to hemorrhage from the choroidal vessels in consequence of the sudden lessening of intraocular tension by the iridectomy, and the necessarily diminished support to the walls of the blood vessels thus produced. Hence the "free blood, etc.," in the space between the detached retina and the choroid.

TWO CASES OF SYMPATHETIC DISTURBANCE FROM FOREIGN BODY IN THE EYE.

BY CHARLES J. LUNDY, A. M., M. D.,

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It is a well established fact that the presence of a foreign body in the eye is a great source of danger to the fellow eye, on account of the sympathetic trouble which, sooner or later, is almost sure to arise. Examples of sympathetic affections of the eye due to such cause are almost too numerous to attract any marked attention. However, the two cases, whose histories I am about to give, differ so widely from those ordinarily observed that I venture to relate them.

CASE I. Henry B., æt. 18, a machinist's apprentice, was struck in the eye by a small piece of steel while using a "punch." The piece of metal penetrated the cornea and crystalline lens. The patient was brought to my clinic, but I did not see him till the next day. On examination a small lacerated wound was observed near the centre of the cornea and the lens was so "cloudy" that no view of the fundus could be obtained. The patient and his friends insisted that they had found the fragment of steel which caused the wound, and that there could not possibly be any ~~of~~ the metal within the eye. Although informed that it was uncertain whether or not the steel was in the eye, and of the danger which would arise if it were there, the patient was in no wise discouraged, but determined to accept the risk. Atropia was frequently instilled, and cold was applied; the patient was put at rest and in the dark. In the course of six days the lens had become tolerably well disorganized, and some of the broken down lens matter found its way into the anterior chamber. There was much ciliary congestion and more or less pain, but no iritis or cyclitis. Seeing that the presence of the disorganized swollen lens was producing much irritation, I removed it by an upward corneal section. After the operation the pain and congestion gradually subsided and the

eye no longer gave discomfort. I had almost arrived at the conclusion that my fears regarding the presence of a foreign body in the eye were not well founded, when 26 days after the removal of the traumatic cataract, I was hurriedly called to see the patient. I was informed that for two days the eye had been irritable and congested, and that during the past night the pain had been so severe as to prevent all sleep. I found marked ciliary congestion, photophobia and lachrymation, with great tenderness on pressure over the whole eye-ball. There was also great intolerance of light in the fellow eye, with some ciliary congestion and lachrymation—in short there was well marked evidence of sympathetic irritation in the fellow eye. The patient was informed that in all probability the outbreak of inflammation was due to the presence of the piece of metal which produced the injury over a month before, and that enucleation of the eye was demanded by the exigency of the case. He would "consent on the morrow if not relieved." The artificial leech was employed, atropia was frequently instilled and hot fomentations were applied. Cold was first tried but, as it increased the pain, hot fomentations were substituted. On the next day matters were worse, if possible, and the patient consented to the operation and the ball was enucleated. Search was made for the offending piece of metal and it was found embedded in the choroid and sclerotic, at the posterior pole of the eye, a short distance from and to the nasal side of the optic disc. Its location was about the point where the short ciliary nerves pierce the sclerotic on entering the globe. It was irregularly oblong, being about 2½ mms. long by less than one mm. broad.

In the great majority of cases sympathetic disturbances follow as the result of some injury done to the ciliary region—"the danger point," as it has been aptly called. In this case no injury whatever was done to the ciliary body, and even the iris had escaped unharmed. But the location of the foreign body in the region where the ciliary nerves enter the globe before passing forward to the ciliary body, and the violent character of the outbreak, with the marked functional disturbances in the fellow eye, make it fair to presume that the piece of metal lay in contact with a nerve twig. I regret that in my haste to dem-

onstrate the presence of the foreign body to the parents of the patient, I lifted it from its bed before its relations could be determined.

CASE II. Henry T., æt. 29, farmer, Stony Point, Ont. Nine years ago he was struck in the eye by a small chip from an iron hoop, which he was driving upon a barrel. The piece of metal penetrated the cornea and iris, and also wounded the crystalline lens and ciliary body. Within a few days after the injury the eye became greatly inflamed and very painful. The inflammation lasted several weeks, and subsided without injury to the fellow eye. To the best of patient's recollection all pain and redness had disappeared within six weeks after the receipt of the injury. Sight was almost wholly destroyed, and he had little more than perception of light, but beyond this the eye gave him no trouble. For nine years this eye remained free from irritation, pain or discomfort, and during all these years a piece of metal lay imbedded in the ciliary body. When the patient consulted me the following conditions were observed: Great ciliary congestion, photophobia and lachrymation, with great tenderness on pressure, especially over the ciliary region. The globe was quite hard, T + 2, and the anterior chamber extremely shallow. As the result of iritis which followed the injury there was complete posterior synechia and occlusion of the pupil. In the fellow eye there was some ciliary congestion, photophobia, photopsia, lachrymation and accommodative asthenopia. The patient was unable to account for the sudden and rather severe outbreak of inflammation in the blind eye. He had not received a blow upon the eye, had not fallen, or received any severe concussion. Neither had he been exposed to wet or cold.

He was informed of the danger to the good eye from the presence of the fellow, and of the probability that there was in the eye the piece of iron which made the wound nine years before. He would not consent to the removal of the eye (which by the way was a good looking eye when not inflamed), but desired me to treat him and subdue the inflammation if possible. At the end of a week there was a slight improvement in his condition, but it was of short duration. The symptoms assumed a more aggravated type, his suffering became intense, and the sympa-

thetic trouble became alarming. On first examination there was slight retinal congestion in the good eye, but it had now become quite marked, and vision was considerably impaired. I now felt it a duty to myself to relinquish the case, unless the patient consented to the removal of the offending organ. He finally consented and the blind, painful eye was enucleated. The sympathetic disturbance soon subsided, and when he visited me, four weeks later, to have an artificial eye fitted, sight was normal. After hardening the enucleated globe, it was opened, and search revealed a small piece of metal lying upon, and partially imbedded in the ciliary body in the upper and inner quadrant. It was surrounded, except at one small point, by a tolerably thick layer of organized inflammatory exudate, which had encapsuled the metal. It was about two mms. long by one and a half mms. broad, and was extremely thin—a mere scale—and crumbled to pieces when grasped by the forceps on being exhibited with the eye at the Wayne County (Mich.) Med. Society. Aside from the evidences of plastic irido-clyclitis, there was one point of interest. It was the deep excavation (cupping) of the optic nerve, similar to that so frequently seen by the ophthalmoscope in advanced stages of glaucoma.

The first of these two cases illustrates the fact that the mischief may ensue from relying too implicitly upon the statements of a patient. When patients fear the loss of an eye, they often try to mislead the surgeon by their positive statements, and I have seen mischief follow in similar cases. It illustrates another point, and that is, that the presence of a foreign substance, especially metallic, elsewhere than in the ciliary body may produce quite as serious results as if located in the ciliary region itself.

It seems to be a pretty well-established fact that sooner or later, a foreign body in the eye, especially if it be a metallic body, will prove a source of serious inflammation and endanger the fellow eye. Case II illustrates this point. Here we have a period of quiescence extending over nine years, when suddenly, and without other known cause, a severe inflammation arises which at once threatens the patient with total blindness. This case also illustrates the conservative efforts of nature, for we

find the jagged piece of iron surrounded by a sort of capsule which protected for a long time those parts so sensitive to irritation. Why, it may be asked, should not the fragment of iron remain in that position indefinitely, having been there nine years without producing further disturbance? It is only a few years since the late Professor Gross removed a bullet from the leg of an old soldier, who was wounded while serving under Napoleon the First. This bullet had been imbedded in the soldiers leg for two-thirds of a century, and had given little or no inconvenience. At last, however, it began to trouble him, and he sought and obtained relief. These metallic substances may become encapsuled by inflammatory products which are thrown out around them and which become organized. Sooner or later the metal is apt to shift its position, as the result of a blow, a jar or concussion, and to break through its capsule and thus it may become a fresh source of irritation and inflammation. Upon this theory, if it be correct, we would be able to explain the occurrence of the severe inflammation and consequent sympathetic disturbance in case II, nine years after the receipt of the injury.

A CASE OF PERNICIOUS ANÆMIA.

BY A. M. BIERWIRTH, M. D., ST. LOUIS.

OPHTHALMOSCOPICAL EXAMINATION, BY A. ALT, M. D.

Mrs. B., aged 23, was in good health up to her 19th year. She then became afflicted with ulcerated sore mouth for one whole year; this then would improve for several months, only to return again. Such relapses have occurred up to the present time. She always menstruated regularly and complained only of a slight pain between the shoulders, frequent headache and palpitations in summer-time. She began to lose flesh ever since she first had the ulcerative stomatitis. She never had to do hard work, and always had good food. She however had a dislike for meat. In November 1883, she was delivered of a healthy boy. Soon after this the ulcerations of the mucous

membrane of the cheeks, the edge of the tongue and of the pharynx returned, accompanied by excessive ptyalism. This condition so distressed her that she was unable to take sufficient nourishment. After vain efforts during more than two months, to rid her of the ulcers, large doses of Iodide of Potassium at last caused them to disappear.

When last seen about four weeks after birth of child she presented the same symptoms as she does to day, after three months treatment.

She is a perfect picture of the utmost prostration caused by excessive anæmia. Her skin presents a waxy more than a pale appearance; her lips are almost as white as her skin; the body is generally emaciated in the highest degree. When her eyes are closed she presents the appearance of a corpse. She has no pain except in the neighborhood of the womb, which, however, is but slight (no organic trouble).

The only symptoms of disease, are the following: An occasional irregular attack of fever, a slight cough, with muco-purulent sputa, and above all a pulse of a 120 or more, fever or no fever. This is accompanied by anæmic noises all over the region of the heart and pulsation of the jugular veins.

There is a very slight dullness at the apex of the left lung, but her respiration is always of normal frequency.

She has a very poor and fickle appetite and her bowels are irregular. Occasionally she will vomit.

Liver, kidney, and spleen are apparently in a normal condition.

The absence of all organic lesions, together with the symptoms of excessive anæmia led to the examination of the blood and of the eyes, and the result of this was that the case must be considered one of so-called *progressive pernicious anæmia.*

The blood drawn from the end of a finger, was very pale and watery, and presented peculiarities not found in normal blood. The red corpuscles were larger and paler than normal, and globular in shape as if they were swelled, thus lacking the central depression peculiar to the red blood-corpuscle. Those appearing on edge presented the shape of a shell, instead of the normal biscuit shape. They, furthermore, did not arrange themselves in the way

of a roll of coin. A great many appeared granulated. Besides the formed elements, there were pieces in the liquid of undefinable character, which were the debris of destroyed red corpuscles. The white blood corpuscles were apparently not increased in number.

Ophthalmoscopic Examination June 18. Both pupils very widely dilated and but very slightly reacting upon strong light.

R. E. Optic papilla very pale, arteries scarcely visible. Veins broad and somewhat tortuous, appearing bright red, like arteries. Retina surrounding the optic papilla slightly whitish infiltrated. Numerous striped hemorrhages in the retina.

L. E. Optic papilla, adjacent retina and blood-vessels are in the same condition as in the R. E. The hemorrhages no longer are visible, but numerous white (fatty) patches in the retina are evidently their remains.

Sight was considerably reduced. An exact examination of the amount of diminution could not be made.

Examination Aug. 10. The patient is considerably improved under the free use of tonics. Pupils smaller, react slowly. Fundus in both eyes free from hemorrhages, no white patches, blood-vessels very small, especially arteries. Discs pinkish. Can read newspaper print.

REPORT OF THE TWENTIETH ANNUAL MEETING OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY, AT THE GRAND HOTEL, CATSKILL MOUNTAINS.

BY ADOLF ALT, M. D.

The meeting of the American Ophthalmological Society took place on the 16th and 17th of July.

Dr. W. F. Norris, of Philadelphia, Vice-President, in the absence of the President, Dr. H. D. Noyes, of New York, called the meeting to order.

Dr. R. H. Derby, of New York, read a paper by Dr. H. Der-

by, of Boston, on *Iridectomy in Chronic Iritis*, taking as a sample a case of chronic recurrent iritis in which iridectomy had been performed on account of threatening glaucoma.

Dr. Derby thought iridectomy useless in these cases, and stated that the course of the disease, which ultimately disappears after years, was in no way altered by the operation.

Dr. Knapp, of New York, called the attention of the society to the fact that a discussion on the same subject at one of the congresses of ophthalmologists at Heidelberg had shown that most ot those present there were against the operation, in chronic recurring iritis. He himself would perform iridectomy only when there was any danger of cyclitis or glaucoma supervening.

Dr. O. F. Wadswqrth, of Boston, then read a paper by Dr. Ch. S. Bull, of New York, *on cases of restoration of the eyelid by Wolf's method.* The paper referred to three cases, two of ectropium, on account of burns, and one caused by caries of the inferior orbital margin. In the first two cases the flaps were taken from the arm, in the third from the chest. He used sutures and a dressing of iodoform and borated cotton; carbolic acid was used as soon as suppuration took place at the sutures. In all of the three cases the result was a satisfactory one.

The next paper was read by Dr. B. E. Fryer, of Kansas City, on a *Successful Case of Skin Flap Transplantation without Pedicle, to cover the Eyelid, after the Removal of an Epithelioma.* In this successful case the dressing consisted simply of two layers of gold beater skin plaster. This plaster, when dry, held the parts firmly together as, "in a splint." Perfect union had taken place on the seventh day.

Dr. R. H. Derby, of New York, then reported a case of *Gangrene of the Lid with subsequent Restoration of Tissue without Plastic Operation* and exhibited the photographs of this case.

In the discussion on these papers, Dr. T. R. Pooley, of New York, stated that he had seen perfect restoration of a lid after total sloughing of a transplanted flap and that he thought the simple excision of the diseased parts about as good a procedure as transplantation.

Dr. Prout, of Brooklyn, reported a successful case of transplantation, and laid peculiar stress on rest and the application of rubber tissue and of a lotion containing boracic acid and opium.

Dr. G. C. Harlan, of Philadelphia, used dry heat, continuall applied, in the form of hot absorbent cotton, with perfect success.

Dr. D. W. S. Little, of Philadelphia, contended that there was no cure for cicatricial ectropium without transplanting.

Dr. L. Howe, of Buffalo, thought that to insure perfect rest, by stitching the lids together, was of more importance for a good result after transplantation, than any special kind of dressing.

Dr. J. A. Andrews, of New York, thought the dressing was of great importance, and said he would not be said with goldbeater skin plaster only.

Dr. J. A. Lippincott, of Pittsburg, in a successful case stitched the lids together, but did not fill the gap by a flap.

Dr. J. Green, of St. Louis, was rather in favor of the goldbeater skin plaster as a dressing, and thought that the sutures gave rise to suppuration.

Dr. Wadsworth stated that in his case he had passed the sutures through the cutis only and no suppuration had occurred.

Dr. G. C, Harlan, of Philadelphia, then read a paper on a *case of monocular hysterical Blindness with Mydriaeis and Blepharospasmus.* These symptoms, as well as some concerning other organs, were cured by the application of a large magnet, even when a sham—magnet, made of wood, was used.

The next paper was read by Dr. H. Knapp, of New York on *Neuro-Retinitis with Fulminant Blindness.* The paper referred to two cases. The first case was that of a man, apparently perfectly healthy, who became rapidly blind under the ophthalmoscopic picture of neuro-retinitis. The only other symptom of disease was that the patient had not urinated in twelve hours, when only ℥ ½ could be withdrawn from his bladder with a catheter. In spite of all treatment (dry cups, salicylate of soda, iodide of potass. and calomel, strychnia and electricity) atrophy of both optic nerves followed, and the patient regained vision

only in one eye, and in a very minute islet of retinal tissue near the macula lutea, which allowed him to perceive objects at a distance of about two feet and in an area of about one square inch.

The second case concerned a girl who became rapidly blind, first in one, then in both eyes, with the ophthalmoscopic picture of neuro-retinitis, after having noticed momentary observations of sight for some time. No other abnormal conditions were found. Salicylate of soda and calomel were given in large large doses, until an excessive diarrhœa ensued. After three days sight began to return gradually, and ultimately became perfect. The optic papillæ had an atrophic appearance.

Dr. Knapp thought that by the active diaphoresis and purging this happy result was obtained, and that it was directly due to the absorption of something which had pressed upon the optic nerves.

Dr. Kipp, of Newark, stated that he had always been accustomed to regard cases of optic neuritis without general symptoms as the result of some brain lesion. He had, however, of late seen cases in which he thought this could not have been the case. He cites especially one case in which a patient had in a fit fallen down some steps and in which monocular optic neuritis developed.

Dr. Knapp thought that the optic neuritis in this case was due to a fracture. He further stated that disease of the frontal lobes of the brain might exist for a long time without causing any marked symptoms besides optic neuritis.

With regard to this point, that even in cases of serious brain affections, the eye symptoms may be the first to be noticed and may for some time not be followed by more important nervous symptoms; Dr. Alt related a case in which optic neuritis preceded the distinct symptoms of chronic cerebro-spinal meningitis by several months.

Dr. W. T. Norris, of Philadelphia, then read a paper on *Hereditary Atrophy of the Optic Nerves.* He gave the history of the families of seven children. Out of twenty-two members of this family fourteen became blind from atrophy of the optic nerve, nine males and five females. The atrophy usually made its appearance after the 16th year of life. In one case he has

been able to watch the beginning and progress of the affection. The first stage was a slight neuritis optica with a central scotoma for colors. This was followed by a general aggravation of the symptoms and marked œdema of the papilla and retina. The third stage then was atrophy. No treatment seemed to be of any value. Only one of these patients got better under bichlorate of mercury and strychnia, his vision being raised from $\frac{6}{LX}$ to $\frac{6}{XXIV}$.

Dr. Howe, of Buffalo, called attention to some cases of hereditary glaucoma and Dr. Kipp to some cases of hereditary atrophy of the optic nerves which were later on improved, the only remaining pathological condition being color-blindness.

Dr. Norris further read a paper on *Two Cases of Orbital Tumor.*

One was a case of myxosarcoma of the orbit in a child four months old. Repeated evisceration of the orbit failed to succeed in preventing relapse.

The second case was one of osteoma in a woman thirty-two years old. It started from the floor of the orbit. In removing it with chisel and hammer the eye had to be sacrificed. It reached back to the optic foramen. Some parts were elastic and evidently cartilagineous. No return after five months.

Dr. J. A. Andrews, of New York, read a paper on *Jequirity.* He severely criticised von Wecker's manner of introducing this remedy, and thinks the bad results, he and others have had, due to the use of strong infusions. He proposes to use a one per cent infusion and only once in 24 hours. He contends that the croupous exudation is not only not necessary, but should rather be avoided, an opinion which none of those present shared with him.

In the discussion, Dr. Seeley, of Cincinnati, stated that he never paid any strict attention to the per cent of the infusion; he he makes a practically saturated infusion. Saw good effects from jequirity in a case of scleritis. He would in cases of dense opacity of the cornea recommend to prick the cornea with the tattooing needle and apply to the jequirity 24 hours after.

Dr. H. S. Schell, of Philadelphia, keeps jequirity from spoiling by adding one per cent of boracic acid, Dr. O. F. Wads-

worth, of Boston, by adding 1½ to 2 per cent of carbolic acid.

Dr. J. S. Prout, of Brooklyn, calls the attention to some cases reported by him in which he had very good results from the use of quinine in just such cases as are now considered to be best treated with jequirity.

In the afternoon session, Dr. A. Alt exhibited the macroscopical and microscopical specimens of the *Case of Experimental Sympathetic Ophthalmia* reported in the last number of this journal.

The discussion on this question proved that the larger part of those present considered the transmission of the inflammation by the optic nerve and its sheaths the most probable way.

Dr. H. G. Miller then exhibited drawings and explained a *new Perimeter* constructed by Dr. E. Dyer.

The evening session was opened by a paper read by Dr. H. S. Schell, of Philadelphia, on *A Case of Embolism of the Central Retinal Artery.* The embolism had occurred in a woman 72 years old. There was an organic lesion of the heart. There was swelling of the optic papillæ and œdema of the retina. The cherry-red spot in the macula was wanting. The rosary arrangement of the blood-vessels and broken columns of blood in motion could well be seen. Pressure emptied the veins. The question was, whether was a case of embolism or of thrombosis.

Then followed a paper by Dr. A. Mathewson, of Brooklyn, on *A Case Illustrating the Natural History of Cataract.* Senile cataract had developed in a man, after he had suffered a number of times from iritis. The cataract one day became dislodged spontaneously into the vitreous chamber. This caused new attacks of iritis to appear, and finally glaucoma sat in. When he was seen in that condition, a small body lay in the anterior chamber which appeared like a piece of the cataractous lens. Eserin. sulph. gave perfect relief at first, then it failed, and opium relieved pain and glaucoma. When this after a few days proved unsuccessful too, the eye had to be enucleated.

Dr. John Green, of St. Louis, reported three similar cases, in one of which the lens has been dislodged for eight years.

Dr. W. W. Seeley, of Cincinnati, read a paper on *Experiences in Refractive Cases*, in which he recommended not to overlook

the state of the ocular muscles when prescribing glasses in cases of ametropia. He thought mixed astigmatism was wery rare and usually disappeared after instillations of atropia. He advocates to give prisms in the cases of myopia with insufficiency of the internal recti.

Dr. Mittendorf, of New York, did not think mixed astigmatism so rare a condition. He is in the habit of prescribing prisms in myopia, with their basis not only outward but sometimes down—or upward. Has found boxing lessons an excellent adjuvant in cases of muscular asthenopia.

The secretary then read a paper by Dr. L. Webster Fox, of Philadelphia, on *The Clinical History of a Case of Sympathetic Ophthalmia.* The case was of interest on account of the rapidity (six months) with which an injured eye not only became useless itself but destroyed its partner. Two illustrations were shown.

Dr. J. A. Lippincott, of Pittsburgh, read a paper on *Two Cases of Orbital Abscess.* In the first case the abscess made its appearance in the right orbit of a child right after the recovery from an attack of facial erysipelas. Two incisions were made, the last one of which struck the pus-cavity. Healing perfect in five weeks. Two days after the opening of this abscess it became necessary to open one in the left orbit. The second case concerned a baby, not quite twelve months old. The pus from this abscess was twice aspirated. There is now a spontaneous opening which discharges pus from time to time. The optic nerve is atrophied.

Dr. Theobald, of Baltimore, related a similar case of abscess of the orbit, in which recovery took place after an incision through the upper lid.

The next paper was by Dr. Ch. J. Kipp, of Newark, on *Abscess of the Frontal Sinus*, reporting two cases. In the first the patient had long been suffering from frontal headache. There was a swelling on the left inner, upper orbital margin, which pushed the eyeball downwards and outwards, and caused diplopia. Dr. Kipp felt a hard, irregular tumor and made the diagnosis of sarcoma of the orbit. When operated upon it proved to be a pus-cavity enclosed within a thin bony shell.

Patient died of pneumonia. The frontal sinus, the ethmoidal cells and the sphenoid sinus were found to have been converted into one large pus-cavity. The roof of the frontal sinus was discolored.

The second case was that of a woman who complained of pain in the left frontal region. A tumor was found situated at the inner, upper angle of the left orbit extending back into the orbital cavity. It was somewhat nodular and hard. It had pushed the eye downwards and outwards. The diagnosis being distention of the frontal sinus, an operation was advised, but declined. When ulceration of the cornea took place from the exposure, Dr. Kipp had again an occasion to examine the tumor. It now gave way under his fingers and a large quantity of fetid matter was emptied through the nose. The cavity was refilled, however, and again emptied by exernal pressure. This procedure is now gone through with as soon as the cavity becomes distended. The discharge is no longer fetid. When patient blows the nose, the air enters the frontal sinus.

Dr. L. Howe, of Buffalo, read a paper on *The Changes in the Eye Immediately after Death.* He has had occasion to examine the eyes of a man dying from pulmonary phthisis during and after death with the ophthalmoscope. The interesting point (which can be seen in any dying animal's eye.—Editor.) was the gradual loss of color of the fundus, until only a white reflex could be obtained through the now wrinkled cornea. Dr. Howe stated that, perhaps, this wrinkling of the cornea might in the case of executed criminals have been mistaken for rupture of the lens-capsule, as he had not found such a rupture in a case which he had occasion to examine.

Dr. Mittendorf stated that Dr. Derby, of New York, had found a rupture of the lens-capsule and dislocation of the lens in five cases out of six.

The session on the second day was opened by a paper read by Dr. W. S. Little, of Philadelphia, on *A Case of Double Glioma of the Retina, Probably Congenital.* The point of interest in this case was, that although both eyes were effected; (enucleation was refused), the malignant growth spread in a very different manner from the two original seats, invading glands and bones

on one side only. Death ensued from suffocation. Several photographs were exhibited.

Dr. Theobald reported the case of a patient who four years after the enucleation of a gliomatous eye was perfectly well.

Dr. Mittendorf thought these patients all died in spite of the enucleation.

Dr. Mathewson thinks, the cases which do not die are not glioma.

Dr. Knapp, protesting against this idea, states that he has watched a case for 14 years after enucleation of one eye on account of true glioma of the retina, when the patient was four years old.

A number of gentlemen have had similar cases, and Dr. Howe referred to one in which Dr. Agnew, of New York, had enucleated both eyes and the patient is living.

Dr. Little further read *A Report of the Progress of the Examination of the Employees of the Pennsylvania Railroad as to their Color-sense and their Acuteness of Vision and of Hearing*, by Dr. W. Thompson, of Philadelphia, according to whose method these examinations have been made. That the method worked very satisfactorily was sucessfully proved by a number of letters from the officers of the railroad company. The examination of 40,000 men had led to the detection of color-blindness in four, of defective acuity of vision in ten per cent.

Dr. G. C. Harlan, of Philadelphia, read the next paper on *Two Cases of Swelling of the Optic Discs, Possibly Congenital.* One case referred to a young man, the other to a girl fifteen years of age. While in the former case (myopia) there were no other symptoms, in the other there were diplopia, headache and occasional dizziness; but these cerebral symptoms disappeared after the correction of the ametropia. Sight perfect.

Similar cases were reported by Drs. Risley and Mittendorf, Dr. Kipp stated that quite a large number of such cases have been put on record by different observers.

Dr G. Hay, of Boston, then reported *Two Cases of Conical Cornea in which Sight was very Considerably Improved by Dr. Raehlmann's hyperbolic lenses.*

Dr. O. F. Wadsworth, of Boston, read the report of *A Case*

of Myxœdema with Atrophy of the Optic Nerve. A woman, 42 years old, had œdema of face, hands and feet, for six years which grew continually worse. Her hands and feet are now considerably enlarged. There is some œdema of the legs. The eyelids and the tongue are enlarged. No pittiug from pressure on the œdematous parts. Her skin is not dry, yet she does not perspire. Her appetite and her mental condition (except her memory) are good. Urine normal. There is atrophy of both optic nerves. The visual field is irregularly contracted. Perhaps, the atrophy is not due to the myxœdema, but only accidentally found in the same individual.

Dr. Little, who had occasion to see a number of cases of myxdœema has never found any eye-symptoms combined with it.

Dr. T. R. Pooley, of New York, read a paper on *Acute One-sided Dakryo-Adenitis.* As in the case reported the dakryo-adenitis followed the sloughing of the cornea of the fellow-eye from blenorrhoic conjunctivitis, Dr. Pooley considers the inflamation of the lachrymal gland due to mild septic infection. No suppuration occurred.

Dr. Knapp does not consider such cases to be rare, they are only not spoken of. The majority do not suppurate. He refers to an epidemic of acute darkyo-adenitis as reported by Galezowski. The prognosis is always good.

Dr. Pooley mentions a case of Dr. Loring's, in which hypertrophy of the gland followed and necessitated its removal.

Dr. Miller reported a case of bilateral acute dakryo-adenitis, which at first was mistaken for gonorrhœal ophthalmia.

Dr. W. T. Mittendorf, of New York, then read a paper on *Polycoria.* In the eye of a young girl the doctor found five pupils, a central one and four peripheric ones. Her father had three pupils. Drawings were shown.

Dr. E. Hutchinson, of Utica, reported a case of *Plastic Operation after a burn of the Lids.* Photographs illustrated the case.

Dr. J. Aub, of Cincinnati, then read a paper on the *Removal of Foreign Bodies from the Vitreous Body.* In the cases which the doctor reported Bradford's magnet was used.

In the first of his cases the piece of iron entered the eye at the outer corneo-scleral margin without injuring the lens. Severe inflammatien, which did not yield to treatment, proved the presence of the foreign substance within the eye. On the fifth day the original wound was enlarged upwards and downwards so as to admit the magnet. The piece of iron withdrawn weighed gr. $\frac{3}{4}$. No reaction, rapid improvement. Twelve days later another piece of iron was seen lying in the vitreous body which was then also removed by an incision and with the aid of the magnet. The magnet was entered between the equator of the lens and the ciliary body and the piece of iron weighing gr. 1 was withdrawn. Sight improved from $\frac{6}{CC}$ to $\frac{20}{XXX}$ within two months. The condition was the same when seen ten months later.

In the second case a piece of steel had entered the vitreous chamber. Two months after the injury had been received, the conjunctiva and Tenon's capsule were dissected off, and an incision was made through the sclerotic. The magnet caught hold of the foreign body in the ciliary region. It weighed gr. $\frac{3}{4}$. The wound was closed by sutures. Four days after this operation S=$\frac{20}{CC}$ and later on increased to $\frac{20}{XX}$ (with glasses). The condition has remained unchanged for two years.

The third case came under observation directly after the accident had occurred. Wound at the inner part of corneo-scleral margin with prolapse of the iris. Blood in the vitreous chamber. Eserine. The prolapse became enlarged, and an iridectomy was performed. S=$\frac{20}{LXX}$. By the use of the ophthalmoscope a piece of steel could be seen lying upon the choroid. Two months later the patient complained of pain and inflammation. The foreign body was now found to be dislodged upon the ciliary body. An incision was made through the conjunctiva. Tenon's capsule and sclerotic in the shape of an ⊐. The magnet was introduced and the foreign body withdrawn successfully. Wound closed by sutures. No reaction. Nine days later S=$\frac{20}{LXX}$, which was finally raised to $\frac{20}{L}$.

The fourth case was seen forty hours after a piece of steel had entered the eyeball through the cornea and lens. No details of the fundus could be seen. Patient insisted upon it that no foreign body could be within the eyeball. The corneal wound did not

close for twelve days, which in Dr. Aub's experience, is a sure sign of the presence of a foreign body within the eyeball. The lens was gradually absorbed within the following six weeks. After this pain, cyclitis, and sympathetic irritation of the fellow eye made their appearance. An attempt was now made to remove the foreign body by aid of the magnet, but failed, although the magnet caused the sclerotic to be drawn inward every time it was brought near the site of the foreign body. The eye was then enucleated and the foreign body found to be encapsulated, thus showing that at an earlier date it might have been removed, had patient given his consent to the operation,

Dr. Knapp related a case in which he succeeded in removing a foreign body from the vitreous body, although it could not be seen before the operation, and a further case in which the foreign body, after having pierced the eyeball was found encapsulated on the outer surface of the sclerotic. He further stated that such injured eyes should always be removed, since they almost always lead to sympathetic inflammation, even after the successful removal of the foreign body.

The last paper was read by Dr. S. D. Risley, of Philadelphia, on *A case of Hypermetropic Astigmatism passing over into Myopia.* He stated that he had observed a number of such cases of gradual distention of the eyeball.

The officers elected for next year are:

President—Dr. W. T. Norris, of Philadelphia.

Vice-President—Dr. H. Derby, of Boston.

Secretary and Treasurer—Dr. O. F. Wadsworth, of Boston.

Corresponding Secretary—Dr. J. S. Prout, of Brooklyn.

The place of meeting will be determined upon by the Secretary.

The by-laws of the society were amended by a unanimous vote in favor of the following resolution:

As member of the society can be admitted only such physicians as have been engaged in the practice of ophthalmology for five years, have shown evidence of scientific attainments, and have conducted themselves in conformity with the ethical rules of the society.